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Young people's difficulty in talking to others about mental health problems: an analysis of time trends in Switzerland

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ABSTRACT

The article aimed to analyse time trends regarding young people's willingness to talk about mental health problems. Data on 16774 participants (16- to 20-year olds) of the '*Swiss Multicentre Adolescent Survey on Health*' (SMASH) were analysed. The survey was conducted in 1992/93 and in 2002.

Logistic regression analyses were conducted to identify predictors associated with the self-reported willingness of youth to talk about mental health problems with adults (other than parents), friends or no one. Socio-demographic characteristics were used as covariates. These analyses were first carried out for the total sample and, in a second step, stratified by suicidality of the participants. The percentage of participants who would talk about mental health problems with adults or friends increased between 1992/1993 and 2002, while the percentage of those who would not talk about such problems decreased. This pattern was confirmed in the stratified analyses (i.e., for suicidal and non-suicidal individuals). Hence, Swiss youth seem to have less difficulty in talking with others about mental health problems than previous cohorts. This trend towards increased disclosure may have implications for claims that the prevalence of mental health problems has increased in recent decades.

Key words: mental health problem; disclosing; informal help; time trends; adolescence; SMASH

1. Introduction ¹

Studies have shown an increasing prevalence of some mental health problems in both youth (Bor et al., 2014; Collishaw et al., 2004; Collishaw et al., 2010) and adult (Jorm and Butterworth, 2006; Mojtabai, 2011; Reavley et al., 2011) populations in recent decades. This change might reflect an actual worsening of the population's mental health (Collishaw et al., 2004; Collishaw et al., 2010) or may be due to an increased willingness to disclose diagnosed disorders or symptoms. In a recent Australian study, it was concluded that the number of those (aged 15+) revealing mental health problems increased between 1995 and 2011 due to an increased willingness of people to disclose such problems (Reavley and Jorm, 2013). In-line with this, a study from the United States showed that 18- to 54-year olds who have participated in a more recent survey (2000-2003) were more comfortable talking with a professional about personal problems and would have been less embarrassed if others found out about it relative to those who have participated in 1990-1992 (Mojtabai, 2007).

If a person suffers from a mental health problem, they are likely to consider the pros and cons of talking about it. The fear of being stigmatized might hinder the person from disclosing their problems and seeking professional help (Gulliver et al., 2010; Rickwood et al., 2005; Schomerus and Angermeyer, 2008; Yap et al., 2013). Furthermore, if a person expects that talking about mental health problems would not lead to an improvement of their situation or if they prefer to handle the problem without help from others, they might decide not to disclose (Gulliver et al., 2010; Mojtabai et al., 2011; Rickwood et al., 2005; Schomerus and Angermeyer, 2008; Yap et al., 2013). Other factors might also facilitate help-seeking, including having a high emotional competence, which enables a person to perceive their internal state and to communicate it to others (Rickwood et al., 2005).

If an adolescent with a mental health problem decides to seek help, an informal rather than formal contact is generally preferred (Rickwood et al., 2005). Hence, it is likely to be especially important for a young person to talk to their parents so that these adults become aware of the problem and

¹ **Abbreviations:** SMASH = *Swiss Multicentre Adolescent Survey on Health*; CI = *confidence interval*; OR = *odds ratio*; AOR = *adjusted odds ratio*

subsequently initiate the formal help-seeking process for their child (Logan and King, 2001; Sayal, 2006). However, adolescence is also characterized by a need to become more autonomous and hence, the likelihood of communicating with parents might decrease with increasing age as peers become more important when it comes to discussing personal concerns (Logan and King, 2001; Sayal, 2006). Besides parents, adolescents might also choose to rely on people from their extended adult network (e.g., teachers) for social support (Beam et al., 2002).

Despite a growing literature about barriers to help-seeking that might be experienced by people with mental health problems, the following research gaps must be considered. Firstly, most studies about this topic have been conducted among adults, whereas adolescents have been less often considered (Sayal, 2006). Secondly, many studies of adolescents have only considered formal help-seeking (Yap et al., 2013), even though young people often prefer to seek help from informal sources, such as friends (Rickwood et al., 2005). Thirdly, there is a dearth of studies that have investigated whether people have become more frank about talking about mental health problems over the years.

In the light of these gaps in the research, the current article aimed to directly assess time trends regarding the willingness of young people to talk to others (including informal sources) about mental health problems.

2. Methods

2.1 Procedure

Analyses were conducted on the ‘*Swiss Multicentre Adolescent Survey on Health*’ (SMASH; for details: (Jeannin et al., 2005; Narring et al., 2004)). This study was conducted in 1992/1993 and again in 2002. Random samples of post-compulsory school classes were used. The targeted 16 to 20 year olds filled out questionnaires during school hours in German, French or Italian. Participation was voluntary and anonymous.

2.2 Measures

2.2.1 Talking about mental health problems

Participants were asked whether they would generally speak with 1) adults beside family members (for the year 2002, the sub-categories ‘another adult at school/apprenticeship’ and ‘another close adult’ were grouped together); 2) friends; or 3) no one, if they had a mental health problem (e.g., feeling depressed or anxious). The answers were coded into ‘yes’ (1) vs. ‘question was not affirmed’ (0). For simplicity, the latter category is subsequently labelled as ‘no’.

2.2.2 Sociodemographic characteristics

The following socio-demographic characteristics were used:

- *Language region*: German-, French- and Italian-speaking;
- *Age* (coded as categorical variable): 16-, 17-, 18-, 19-, 20-years old;
- *Gender*;
- *Nationality*: categorized into ‘Swiss’ (including people with a dual citizenship that includes Switzerland) vs. ‘Non-Swiss’;
- *Academic track*: ‘high school’ vs. ‘apprenticeship’;
- *Residence*: categorized into ‘rural areas / village’ vs. ‘cities / suburbs’;
- *Education parents*: the level of education of both fathers and mothers were coded into ‘low’ (mandatory school), ‘moderate’ (e.g., apprentice) and ‘high’ (e.g., university);
- *Living situation parents*: the living situation of parents was described as ‘parents live together’, ‘parents are divorced or separated’ or ‘at least one parent died’.

2.2.3 Mental health problem

It is possible, that time trends in the willingness to talk about mental health problems differ for groups with a mental health problem vs. those who had none. Only questions about suicidality – as an indicator of mental health problems – were available for both survey years. More precisely, both surveys asked, whether 1) the person had ever thought about suicide; 2) there were times when he/she wanted to commit suicide; 3) he/she would have committed suicide if given a chance; and 4) he/she

had attempted suicide. Every question was answered with no vs. yes and referred to the last 12 months. Based on answers to these questions, three categories were built: 1) '*non-suicidal*' (people who answered all questions about suicidality with no); 2) '*suicidal*' (at least one item about suicidality was confirmed); and 3) '*missing values*' (respondents who answered some of the questions about suicidality with no and left others unanswered).

2.3 Analytical sample

Participants were excluded from the original data sets that we got when they were younger or older than the targeted age group (16-20 years) or with missing data in age or sex (0.7%). For all other socio-demographic variables, a residual category with missing values was used if there were any missing values. The analytical sample consisted of 16,774 participants.

2.4 Statistical analyses

Socio-demographic characteristics between survey years were compared using chi-square analysis. Logistic regression analyses were conducted to identify predictors associated with an affirmative answer to the question of whether the person would talk about mental health problems. Survey year and socio-demographic variables (see 2.2.2) were used as predictors. Crude odds ratios (OR) were calculated for single predictors (e.g., survey year) for both surveys. Furthermore, adjusted odds ratios (AOR) were calculated (i.e., all predictors were considered in the model simultaneously). These analyses were first carried out for the total sample, and later stratified by suicidality. Due to the large sample sizes, only results that were significant at the $p \leq .001$ level are discussed in the text when they referred to the entire sample. For the stratified analyses, results are also reported when $p \leq .05$.

3. Results

3.1 Socio-demographic characteristics

Socio-demographic characteristics by survey year are described in Table 1. Differences at the significance level of $p \leq .001$ by survey year were found for all socio-demographic characteristics.

3.2 Talking about mental health problems: total sample

Overall, 7.8% of the participants said they would talk about mental health problems with adults other than family members and 34.6% with friends (Table 2). Furthermore, 9.4% of the respondents indicated that they would not speak about mental health problems at all. Subsequent results were, if not mentioned otherwise, found in both unadjusted and adjusted analyses. The percentages of those who would talk about mental health problems with adults or friends was significantly higher in 2002 than in 1992/1993, while the percentage of those who would not speak about such problems decreased. Compared to German-speaking participants, youth from the French- and Italian-speaking parts of Switzerland were more likely to report that they would talk about mental health problems to their friends (French-speaking participants were also more likely to report that they would talk to adults), but at the same time also more likely not to talk about such problems. Females were more likely than males to mention that they would talk about their mental health problems with adults or friends, and less likely to say that they would not speak about such problems. Apprentices were less likely than high school students to state that they would speak about mental health problems with their friends. Relative to participants with parents who live together, adolescents with parents who were separated or divorced were more likely to indicate that they would talk about mental health problems with adults other than family members. No significant associations at the $p \leq .001$ level were found in the adjusted analyses for age, nationality, residence or education of the father and mother.

3.3 Talking about mental health problems: stratified analyses

The stratified analyses are presented in Table 3. Crude OR and AOR are only reported for the predictor ‘*survey year*’, which is of main interest for the present article (the results for the other predictors did not change largely; results not shown). Non-suicidal as well as suicidal participants

became more likely to talk with adults and friends about mental health problems in 2002 relative to 1992/93, but less likely to talk with no one. Similar results were found for participants with a missing value in the suicidality indicator variable. However, due to the small size of this subsample ($n=209$), the results were not always significant (see outcome ‘talking to adults’ and ‘talking to no one’).

4. Discussion

Analyses indicated that the willingness to talk about mental health problems increased over the years among youth living in Switzerland. This pattern was confirmed in the analyses that were stratified by suicidality. Furthermore, some socio-demographic subgroups were more likely to talk about mental health problems.

4.1 Time trends

The percentage of participants who would talk about mental health problems with adults (other than family members) or friends increased between 1992/1993 and 2002, whereas the percentage of those who would not talk about such problems decreased. This pattern was confirmed among those who were not suicidal, as well as those who affirmed at least one of the items about suicidality. Hence, the willingness to talk about mental health problems seems to have increased over the years, which is consistent with other findings, such as an improvement in public attitudes towards help-seeking for mental health problems over the years (Schomerus and Angermeyer, 2008). Furthermore, it is in line with the findings that Americans (aged 18-54) who had participated in a more recent survey were more comfortable talking with a professional about personal problems and were less likely to indicate that they would be embarrassed if others found out about it relative to those who had participated in an earlier survey (Mojtabai, 2007).

The increased willingness to talk about mental health symptoms and problems might be linked to improved mental health literacy in the general population (Angermeyer et al., 2009; Angermeyer and

Matschinger, 2005a; Goldney et al., 2009; Jorm et al., 2006; Reavley and Jorm, 2012a), as improved recognition of mental health problems may have led to an increase in the reporting of such problems. Another possible explanation for the demonstrated time trend is that a decrease in negative attitudes towards people with mental health problems has led to an increased willingness to talk about them. However, since attitudes towards mental health problems did not improve uniformly over the years (Angermeyer and Matschinger, 2005b; Angermeyer et al., 2013; Pescosolido et al., 2010; Reavley and Jorm, 2012b), this explanation might only be valid for some mental health problems or for particular contexts.

The present study has also shown that the increased willingness to talk about mental health problems seems to be a general trend. Accordingly, this time trend was not only found for the entire sample, but also for people who were suicidal and those who were not.

4.2 Difficulties in talking about mental health symptoms and problems

Even though the increased willingness to talk about mental health symptoms described here might be seen as an improvement (e.g., because it might be attributable to improved mental health literacy or reduced stigma), 6.1% of participants in 2002 reported that they would not talk about mental health problems, possibly because they prefer to deal with them on their own due to their growing need to be autonomous (Gulliver et al., 2010; Logan and King, 2001; Rickwood et al., 2005; Wisdom et al., 2006). Some young people might also keep their mental health problems to themselves because they fear the negative consequences of disclosure (e.g., embarrassment or stigma; (Gulliver et al., 2010; Rickwood et al., 2005; Yap et al., 2013)).

4.3 Socio-demographic characteristics

Various socio-demographic characteristics were associated with the outcomes investigated. First of all, significant associations with language regions were found, which presumably were due to different response styles. The results indicate that French- and Italian-speaking participants might, relative to German-speaking youth, be more likely to endorse any statement, because they were not only more

likely to indicate that they would talk about mental health problems with friends and adults (only significant for French-speaking participants), but also to endorse the statement that they would not speak about mental health problems at all.

Secondly, females were more willing to talk about mental health problems with significant others. These findings are in line with the notion that females are more likely to seek support and advice from other people regarding mental health problems, whereas males more often rely on themselves (Rickwood et al., 2005). Furthermore, the higher mental health literacy of young females (Burns and Rapee, 2006; Cotton et al., 2006; Wright and Jorm, 2009) might have contributed to this result. It is possible that a better recognition of mental health problems in females, as well as the knowledge that these problems are prevalent in youth and should be treated professionally, increased the willingness to talk about them. Lastly, a higher emotional competence among females (i.e., a better perception of one's internal state and a higher ability to communicate it to others) might partly explain the demonstrated sex differences (Rickwood et al., 2005).

Thirdly, apprentices seemed to be less willing to talk about mental health problems compared to high school students, as demonstrated in the SMASH. This difference might have been due to differences in the daily routine. During the week, high school students are continuously surrounded by peers and might therefore exchange their thoughts easily. In contrast, apprentices might, when they are not in school, be trained in a company, where no other young people work and no continuous and personal exchange with peers is possible.

Lastly, participants whose parents were separated or divorced were more likely to indicate that they would talk about mental health problems with other adults beside family members compared to respondents whose parents still lived together. Due to the separation or divorce of their parents these adolescents might have more frequent contact with other adults (e.g., with new partners of their parents) with whom they may build confidence and, hence, would use them as a source of support if they suffered from mental health problems.

4.5 Limitations

Despite the strength of the current study (e.g., large sample size that permitted the concurrent adjustment for multiple socio-demographic characteristics), the following limitations must be considered. Most importantly, no information was provided about time trends in the willingness of youth to talk about mental health problems with *family members* (particularly parents). In both survey years of the SMASH, a question about ‘talking to family members’ was asked. However, due to inconsistency in the data, we excluded this variable from the analyses. It must, however, be emphasized that the associations between this variable and the predictors used here (e.g., survey year) were similar to the associations described for other outcomes (e.g., talking to adults beside family members). Furthermore, information about mental health problems, that was assessed similarly in 1992/93 and 2002, was limited in the SMASH survey. Hence, it was only possible to stratify the analyses by suicidality. It also has to be considered that some people were excluded, such as approximately 20% of the 16- to 20-years olds who did not attend a high school or vocational training school (e.g., youth with an unskilled position without schooling; (Jeannin et al., 2005; Narring et al., 2004). Furthermore, no data were available about students who were not in school during data collection. Lastly, the SMASH survey was limited by only having two time points and it is also possible that changes have occurred since 2002.

4.6 Conclusions

The repeatedly described increase in the prevalence of particular mental health problems among youth over the last decades (Bor et al., 2014; Collishaw et al., 2004; Collishaw et al., 2010) might be at least partly attributable to an increased willingness of young people to talk about mental health problems. Hence, the worsening of young people’s mental health might have been overestimated by some authors. Nevertheless, an actual increase in some mental health problems, which might have paralleled the time trend regarding talking about mental health problems and worries, cannot be ruled out based the present data.

Since talking about mental health problems might be a crucial first step in the help-seeking process (Logan and King, 2001), socio-demographic subgroups that are less likely to do so – such as males – demand further attention. Appropriate interventions could be planned based on findings from follow-up surveys about the reasons for these group differences. For instance, if the finding that males are less likely to talk about their mental health problems is due to their poorer mental health literacy, then this competency should be improved.

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Contributions

Planned and conceptualized the data analyses and the content of the article: all authors; analysed the data: MD; wrote the paper: MD; critically revised the manuscript: all authors.

Conflict of interest: The authors declare that they have no conflict of interest.

References

- Angermeyer, M.C., Holzinger, A., Matschinger, H., 2009. Mental health literacy and attitude towards people with mental illness: a trend analysis based on population surveys in the eastern part of Germany. *Eur Psychiatry* 24, 225-232.
- Angermeyer, M.C., Matschinger, H., 2005a. Have there been any changes in the public's attitudes towards psychiatric treatment? Results from representative population surveys in Germany in the years 1990 and 2001. *Acta Psychiatr Scand* 111, 68-73.
- Angermeyer, M.C., Matschinger, H., 2005b. The stigma of mental illness in Germany: a trend analysis. *The International journal of social psychiatry* 51, 276-284.
- Angermeyer, M.C., Matschinger, H., Carta, M.G., Schomerus, G., 2013. Changes in the perception of mental illness stigma in Germany over the last two decades. *Eur Psychiatry*.
- Beam, M.R., Chen, C., Greenberger, E., 2002. The nature of adolescents' relationships with their "very important" nonparental adults. *American journal of community psychology* 30, 305-325.
- Bor, W., Dean, A., Najman, J., Hayatbakhsh, R., 2014. Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australian and New Zealand Journal of Psychiatry* 48, 606-616.
- Burns, J.R., Rapee, R.M., 2006. Adolescent mental health literacy: young people's knowledge of depression and help seeking. *Journal of Adolescence* 29, 225-239.
- Collishaw, S., Maughan, B., Goodman, R., Pickles, A., 2004. Time trends in adolescent mental health. *Journal of Child Psychology and Psychiatry* 45, 1350-1362.
- Collishaw, S., Maughan, B., Natarajan, L., Pickles, A., 2010. Trends in adolescent emotional problems in England: a comparison of two national cohorts twenty years apart. *Journal of Child Psychology and Psychiatry* 51, 885-894.
- Cotton, S.M., Wright, A., Harris, M.G., Jorm, A.F., McGorry, P.D., 2006. Influence of gender on mental health literacy in young Australians. *The Australian and New Zealand journal of psychiatry* 40, 790-796.

Goldney, R.D., Dunn, K.I., Dal Grande, E., Crabb, S., Taylor, A., 2009. Tracking depression-related mental health literacy across South Australia: a decade of change. *Australian and New Zealand Journal of Psychiatry* 43, 476-483.

Gulliver, A., Griffiths, K.M., Christensen, H., 2010. Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC Psychiatry* 10, 113.

Jeannin, A., Narring, F., Tschumper, A., Bonivento, L.I., Addor, V., Butikofer, A., Suris, J.C., Diserens, C., Alsaker, F., van Melle, G., Michaud, P.A., 2005. Self-reported health needs and use of primary health care services by adolescents enrolled in post-mandatory schools or vocational training programmes in Switzerland. *Swiss Medical Weekly* 135, 11-18.

Jorm, A.F., Butterworth, P., 2006. Changes in psychological distress in Australia over an 8-year period: evidence for worsening in young men. *Australian and New Zealand Journal of Psychiatry* 40, 47-50.

Jorm, A.F., Christensen, H., Griffiths, K.M., 2006. The public's ability to recognize mental disorders and their beliefs about treatment: changes in Australia over 8 years. *Aust N Z J Psychiatry* 40, 36-41.

Logan, D.E., King, C.A., 2001. Parental facilitation of adolescent mental health service utilization: a conceptual and empirical review. *Clin Psychol-Sci Pr* 8, 319-333.

Mojtabai, R., 2007. Americans' attitudes toward mental health treatment seeking: 1990-2003. *Psychiatr Serv* 58, 642-651.

Mojtabai, R., 2011. National Trends in Mental Health Disability, 1997-2009. *American Journal of Public Health* 101, 2156-2163.

Mojtabai, R., Olfson, M., Sampson, N.A., Jin, R., Druss, B., Wang, P.S., Wells, K.B., Pincus, H.A., Kessler, R.C., 2011. Barriers to mental health treatment: results from the National Comorbidity Survey Replication. *Psychol Med* 41, 1751-1761.

Narring, F., Tschumper, A., Inderwildi Bonivento, L., Jeannin, A., Addor, V., Bütikofer, A., Suris, J.C., Diserens, C., Alsaker, F., Michaud, P.A., 2004. Gesundheit und Lebensstil 16- bis 20- Jähriger in der Schweiz (2002). SMASH 2002:Swiss multicenter adolescent survey on health 2002. IUMSP Lausanne.

Pescosolido, B.A., Martin, J.K., Long, J.S., Medina, T.R., Phelan, J.C., Link, B.G., 2010. "A disease like any other"? A decade of change in public reactions to schizophrenia, depression, and alcohol dependence. *Am J Psychiatry* 167, 1321-1330.

Reavley, N.J., Jorm, A.F., 2012a. Public recognition of mental disorders and beliefs about treatment: changes in Australia over 16 years. *The British journal of psychiatry : the journal of mental science* 200, 419-425.

Reavley, N.J., Jorm, A.F., 2012b. Stigmatising attitudes towards people with mental disorders: changes in Australia over 8 years. *Psychiatry Res* 197, 302-306.

Reavley, N.J., Jorm, A.F., 2013. Willingness to disclose a mental disorder and knowledge of disorders in others: changes in Australia over 16 years. *Aust N Z J Psychiatry*.

Reavley, N.J., Jorm, A.F., Cvetkovski, S., Mackinnon, A.J., 2011. National depression and anxiety indices for Australia. *Australian and New Zealand Journal of Psychiatry* 45, 780-787.

Rickwood, D., Deane, F., Wilson, C., Ciarrochi, J., 2005. Young people's help-seeking for mental health problems *AeJAMH (Australian e-Journal for the Advancement of Mental Health)* 4.

Sayal, K., 2006. Annotation: Pathways to care for children with mental health problems. *J Child Psychol Psychiatry* 47, 649-659.

Schomerus, G., Angermeyer, M.C., 2008. Stigma and its impact on help-seeking for mental disorders: what do we know? *Epidemiol Psichiatr Soc* 17, 31-37.

Wisdom, J.P., Clarke, G.N., Green, C.A., 2006. What teens want: barriers to seeking care for depression. *Adm Policy Ment Hlth* 33, 133-145.

Wright, A., Jorm, A.F., 2009. Labels used by young people to describe mental disorders: factors associated with their development. *Australian and New Zealand Journal of Psychiatry* 43, 946-955.

Yap, M.B., Reavley, N., Jorm, A.F., 2013. Where would young people seek help for mental disorders and what stops them? Findings from an Australian national survey. *J Affect Disord* 147, 255-261.

Table 1: Socio-demographic characteristics by survey year

Survey year:	TOTAL	1992 / 1993	2002	χ^2	df	p
	n (%)	n (%)	n (%)			
	16774 (100)	9226 (100)	7548 (100)			
<i>Language region</i>						
German	9316 (55.5)	5158 (55.9)	4158 (55.1)	84.84	2	<.001
French	5792 (34.5)	3323 (36.0)	2469 (32.7)			
Italian	1666 (9.9)	745 (8.1)	921 (12.2)			
<i>Age</i>						
16	3001 (17.9)	2038 (22.1)	963 (12.8)	362.2	4	<.001
17	4818 (28.7)	2739 (29.7)	2079 (27.5)			
18	4816 (28.7)	2535 (27.5)	2281 (30.2)			
19	2801 (16.7)	1352 (14.7)	1449 (19.2)			
20	1338 (8.0)	562 (6.1)	776 (10.3)			
<i>Sex</i>						
Male	9135 (54.5)	5245 (56.9)	3890 (51.5)	47.3	1	<.001
Female	7639 (45.5)	3981 (43.1)	3658 (48.5)			
<i>Nationality</i>						
Swiss	13998 (83.5)	7637 (82.8)	6361 (84.3)	14.2	2	<.001
Non-Swiss:	2708 (16.1)	1539 (16.7)	1169 (15.5)			
Missing values	68 (0.4)	50 (0.5)	18 (0.2)			
<i>Academic track</i>						
High school	5840 (34.8)	3314 (35.9)	2526 (33.5)	11.0	1	<.001
Apprenticeship	10934 (65.2)	5912 (64.1)	5022 (66.5)			
<i>Residence</i>						
rural areas / village	9333 (55.6)	5134 (55.6)	4199 (55.6)	13.7	2	<.001
cities / suburbs	7285 (43.4)	4029 (43.7)	3256 (43.1)			
Missing values	156 (0.9)	63 (0.7)	93 (1.2)			
<i>Education father</i>						
low	2740 (16.3)	1665 (18.0)	1075 (14.2)	78.3	3	<.001
Moderate	9243 (55.1)	4945 (53.6)	4298 (56.9)			
High	3040 (18.1)	1565 (17.0)	1475 (19.5)			
Missing values	1751 (10.4)	1051 (11.4)	700 (9.3)			
<i>Education mother</i>						
low	4246 (25.3)	2614 (28.3)	1632 (21.6)	226.5	3	<.001
Moderate	8895 (53.0)	4540 (49.2)	4355 (57.7)			
High	1908 (11.4)	946 (10.3)	962 (12.7)			
Missing values	1725 (10.3)	1126 (12.2)	599 (7.9)			
<i>Living situation</i>						
<i>parents</i>						
live together	13267 (79.1)	7485 (81.1)	5782 (76.6)	71.2	3	<.001
divorced/separated	2729 (16.3)	1302 (14.1)	1427 (18.9)			
at least one parent						
died	644 (3.8)	369 (4.0)	275 (3.6)			

<i>Missing values</i>	134 (0.8)	70 (0.8)	64 (0.8)
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* = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

Table 2: Logistic regression models of having no difficulties of talking about mental health problems predicted by survey year and socio-demographic characteristics

<i>Talking about mental health problems with...</i>		<i>...adults (beside family members)</i>		<i>...friends</i>		
		Crude ^a	Adjusted ^b	Crude ^a		Adjusted ^b
		% yes	OR (95% CI)	% yes	OR (95% CI)	OR (95% CI)
TOTAL		7.8		34.6		
<i>Survey year</i>						
1992 / 1993		4.1	1	29	1	1
2002		12.4	3.30 (2.91-3.73)***	41.3	1.72 (1.61-1.83)***	1.72 (1.60-1.84)***
<i>Language region</i>						
German		6.8	1	24.5	1	1
French		9.3	1.40 (1.24-1.57)***	47.3	2.77 (2.58-2.97)***	2.98 (2.77-3.22)***
Italian		8.4	1.25 (1.04-1.52)*	46.2	2.65 (2.38-2.95)***	2.69 (2.40-3.02)***
<i>Age</i>						
16		6.3	1	36.9	1	1
17		7.5	1.20 (1.00-1.44)	34.5	0.90 (0.82-0.99)*	1.01 (0.91-1.12)
18		7.3	1.17 (0.97-1.40)	33.3	0.86 (0.78-0.94)**	0.99 (0.90-1.10)
19		9.4	1.53 (1.26-1.86)***	34.3	0.90 (0.81-1.00)*	1.06 (0.94-1.19)
20		11	1.83 (1.46-2.29)***	34.5	0.90 (0.79-1.03)	1.06 (0.91-1.22)
<i>Sex</i>						
male		6.4	1	27.1	1	1
female		9.5	1.55 (1.38-1.73)***	43.5	2.08 (1.95-2.22)***	2.05 (1.92-2.20)***
<i>Nationality</i>						

Swiss	7.9	1	1	34.4	1	1
Non-Swiss:	7.5	1.35 (1.05-1.74)*	0.97 (0.82-1.16)	35.3	1.35 (1.20-1.52)***	0.97 (0.87-1.07)
<i>Missing values</i>	5.9	0.50 (0.07-3.65)	0.88 (0.31-2.48)	36.8	1.33 (0.74-2.39)	1.21 (0.71-2.05)
<i>Academic track</i>						
High school	7.7	1	1	41.3	1	1
Apprenticeship	7.9	1.03 (0.92-1.16)	1.11 (0.98-1.27)	31	0.64 (0.60-0.68)***	0.78 (0.73-0.85)***
<i>Residence</i>						
in rural areas / in a village	7.6	1	1	34.1	1	1
in cities / suburbs	8.1	1.07 (0.95-1.20)	1.04 (0.92-1.17)	35.3	1.06 (0.99-1.13)	0.97 (0.90-1.04)
<i>Missing values</i>	9.6	1.29 (0.76-2.21)	1.13 (0.65-1.96)	28.2	0.76 (0.54-1.08)	0.76 (0.52-1.10)
<i>Education father</i>						
low (mandatory school)	7	1	1	34.7	1	1
moderate (e.g., apprentice)	8.1	1.17 (0.99-1.38)	1.10 (0.90-1.33)	34.5	0.99 (0.91-1.09)	1.07 (0.96-1.19)
high (e.g., university)	8	1.15 (0.95-1.40)	1.05 (0.83-1.32)	37.1	1.11 (1.00-1.24)	1.09 (0.95-1.25)
<i>Missing values</i>	7.1	1.01 (0.80-1.27)	1.02 (0.77-1.36)	30.4	0.82 (0.72-0.94)**	0.92 (0.78-1.09)
<i>Education mother</i>						
low (mandatory school)	7.2	1	1	35	1	1
moderate (e.g., apprentice)	8.3	1.17 (1.01-1.34)*	1.07 (0.91-1.26)	34.5	0.98 (0.91-1.06)	1.03 (0.94-1.14)
high (e.g., university)	9	1.28 (1.05-1.55)*	1.17 (0.93-1.47)	39.1	1.19 (1.07-1.33)**	1.05 (0.92-1.21)
<i>Missing values</i>	5.6	0.77 (0.61-0.97)*	0.80 (0.60-1.06)	28.4	0.74 (0.65-0.83)***	0.82 (0.70-0.95)**
<i>Living situation parents</i>						
live together	7.2	1	1	34.3	1	1
divorced/separated	10.4	1.50 (1.31-1.73)***	1.32 (1.14-1.53)***	36.4	1.10 (1.01-1.20)*	1.00 (0.91-1.09)
at least one parent died	9.2	1.31 (0.99-1.72)	1.35 (1.02-1.80)*	32.9	0.94 (0.80-1.12)	0.98 (0.82-1.18)
<i>Missing values</i>	13.4	2.01 (1.22-3.31)**	1.93 (1.15-3.23)*	35.8	1.07 (0.75-1.53)	1.12 (0.77-1.64)

Table 2 continued

<i>Talking about mental health problems with...</i>		<i>...no one</i>	
		Crude ^a	Adjusted ^b
	% yes	OR (95% CI)	OR (95% CI)
TOTAL	9.4		
<i>Survey year</i>			
1992 / 1993	12.0	1	1
2002	6.1	0.48 (0.43-0.53)***	0.48 (0.43-0.54)***
<i>Language region</i>			
German	3.8	1	1
French	17.7	5.48 (4.83-6.21)***	5.42 (4.76-6.18)***
Italian	11.8	3.42 (2.84-4.10)***	3.65 (3.02-4.42)***
<i>Age</i>			
16	11.7	1	1
17	9.7	0.81 (0.70-0.94)**	1.03 (0.89-1.21)
18	9.1	0.75 (0.65-0.87)***	1.07 (0.91-1.25)
19	7.9	0.65 (0.54-0.77)***	0.97 (0.80-1.17)
20	7.1	0.58 (0.45-0.73)***	0.91 (0.71-1.17)
<i>Sex</i>			
male	11.7	1	1
female	6.6	0.53 (0.47-0.59)***	0.54 (0.48-0.61)***
<i>Nationality</i>			
Swiss	8.8	1	1
Non-Swiss:	12.2	1.31 (1.12-1.53)***	0.97 (0.83-1.12)

<i>Missing values</i>	7.4	0.49 (0.15-1.57)	0.73 (0.29-1.86)
<i>Academic track</i>			
High school	8.5	1	1
Apprenticeship	9.9	1.18 (1.06-1.32)**	1.20 (1.06-1.37)**
<i>Residence</i>			
in rural areas / in a village	8.5	1	1
in cities / suburbs	10.5	1.27 (1.15-1.41)***	1.09 (0.97-1.22)
<i>Missing values</i>	10.9	1.32 (0.80-2.20)	1.29 (0.76-2.19)
<i>Education father</i>			
low (mandatory school)	12.4	1	1
moderate (e.g., apprentice)	8.1	0.62 (0.54-0.71)***	0.81 (0.68-0.95)*
high (e.g., university)	8.0	0.61 (0.51-0.72)***	0.84 (0.67-1.04)
<i>Missing values</i>	14.0	1.15 (0.96-1.37)	0.99 (0.78-1.25)
<i>Education mother</i>			
low (mandatory school)	11.5	1	1
moderate (e.g., apprentice)	7.6	0.63 (0.56-0.71)***	0.92 (0.80-1.07)
high (e.g., university)	8.0	0.67 (0.55-0.81)***	0.88 (0.70-1.10)
<i>Missing values</i>	15.0	1.35 (1.15-1.59)***	1.20 (0.97-1.48)
<i>Living situation parents</i>			
live together	8.9	1	1
divorced/separated	11.0	1.27 (1.11-1.45)***	1.24 (1.07-1.43)**
at least one parent died	11.8	1.37 (1.07-1.75)*	1.22 (0.94-1.58)
<i>Missing values</i>	11.2	1.29 (0.75-2.21)	1.21 (0.68-2.14)

Note: CI= confidence interval; OR = odds ratio; ^a unadjusted analyses with just one predictor in the model; ^b all predictors included in the model; * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$

Table 3: Logistic regression models of having no difficulties of talking about mental health problems predicted by survey year, stratified by level of suicidality

<i>Talking about mental health problems with...</i>						
		<i>...adults (beside family members)</i>		<i>...friends</i>		
		Crude ^a	Adjusted ^b	Crude ^a		Adjusted ^b
		% yes	OR (95% CI)	% yes	OR (95% CI)	OR (95% CI)
TOTAL SAMPLE (n=16774)						
TOTAL	7.8			34.6		
<i>Survey year</i>						
1992 / 1993	4.1	1	1	29	1	1
2002	12.4	3.30 (2.91-3.73)***	3.07 (2.71-3.49)***	41.3	1.72 (1.61-1.83)***	1.72 (1.60-1.84)***
MISSING VALUES IN SUICIDALITY QUESTION (n=209)						
TOTAL	4.3			22.5		
<i>Survey year</i>						
1992 / 1993	2.6	1	1	9.1	1	1
2002	5.3	2.10 (0.43-10.37)	1.13 (0.16-7.94)	30.3	4.35 (1.84-10.29)***	4.05 (1.58-10.37)**
NOT SUICIDAL (n=11210)						
TOTAL	7.4			34.1		

Survey year

1992 / 1993	3.2	1	1	27.4	1	1
2002	11.6	4.00 (3.38-4.75)***	3.70 (3.11-4.40)***	40.8	1.82 (1.69-1.98)***	1.77 (1.63-1.93)***

SUICIDAL (n=5355)**TOTAL****8.9****36***Survey year*

1992 / 1993	5.6	1	1	32.1	1	1
2002	15.2	3.00 (2.48-3.64)***	2.78 (2.30-3.39)***	43.5	1.64 (1.46-1.84)***	1.64 (1.44-1.86)***

Table 3 continued

<i>Talking about mental health problems with...</i>		<i>...no one</i>	
		Crude ^a	Adjusted ^b
	% yes	OR (95% CI)	OR (95% CI)
TOTAL SAMPLE (n=16774)			
TOTAL	9.4		
<i>Survey year</i>			
1992 / 1993	12.0	1	1
2002	6.1	0.48 (0.43-0.53)***	0.48 (0.43-0.54)***
MISSING VALUES IN SUICIDALITY QUESTION (n=209)			
TOTAL	4.3		
<i>Survey year</i>			
1992 / 1993	5.2	1	1
2002	3.8	0.72 (0.19-2.76)	cannot be calculated
NOT SUICIDAL (n=11210)			
TOTAL	7.8		
<i>Survey year</i>			
1992 / 1993	10.3	1	1
2002	5.2	0.48 (0.41-0.55)***	0.51 (0.44-0.60)***

SUICIDAL (n=5355)

	TOTAL		
Survey year			
1992 / 1993	14.9	1	1
2002	9.1	0.57 (0.48-0.69)***	0.53 (0.44-0.64)***

Note: CI= confidence interval; OR = odds ratio; ^a unadjusted analyses with just survey year in the model; ^b adjusted for socio-demographic variables (language region; age; sex; nationality; academic track; residence; education father and mother; living situation parents). * = $p \leq .05$; ** = $p \leq .01$; *** = $p \leq .001$